The PHENIX Data Acquisition System

Mickey Chiu [a] for the PHENIX Collaboration

[a] *Columbia University, United States*

Presented by: Mickey Chiu

Abstract

The PHENIX detector has a high rate Data Acquisition System that can sample every collision up to ten times the design luminosity of RHIC. It is a crucial element to PHENIX's ability to study rare probes. To achieve these high rates, the PHENIX DAQ was designed as a multiply staged, parallel pipeline system. The success of this design was demonstrated during year 1 of RHIC operations, when PHENIX recorded over five million minimum bias Au-Au collisions at a $\sqrt{s}$ = 130 A GeV. An overview of the PHENIX DAQ will be given, including an assessment of its performance during the first year of data taking.